*Mondia whitei* cuttings grown in solution, the percentage root formation was significantly higher ($p<0.05$) in NAA concentration of 2 mg per litre, while river sand showed no significant difference. Root numbers and root length were significantly higher ($p<0.05$) in NAA concentration of 0.5 mg per litre for *Mondia whitei* cuttings grown in both solution and river sand.

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## Poster Abstracts

### Promotion of seedling growth in *Jatropha curcas* – a potential oil seed crop for biodiesel

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The effects of aerosol smoke, smoke water, potassium nitrate, naphthalene acetic acid and indole-3-butyric acid on germination and seedling growth of *Jatropha curcas* were investigated. Seed coat removal accelerated water imbibition and germination occurred within 48 h. Seeds exposed to aerosol smoke failed to germinate over the whole study period of three months. There were no significant differences in total germination between the treatments and the untreated control (intact- and shelled-seed). However, shelled-seeds had a shorter mean germination time. The seedlings were subsequently, sown in trays under shade house conditions and different seedling growth traits measured after three months. Smoke water, potassium nitrate and naphthalene acetic acid produced significantly heavier seedlings with longer stems and roots, wider stems and a higher vigour index compared to the control treatments. Smoke water, potassium nitrate and naphthalene acetic acid stimulated seedling growth and vigour of *J. curcas*. This opens the possibility of applying these treatments to produce quality seedlings for large scale planting and accelerated plant establishment in production orchards.

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### The effects of experimental warming on flowering phenology, seed production and physiology of 24 fynbos species

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Plants use several environmental inputs in adapting their flowering to a particular season of the year. Information of these environmental controls of flowering is important for production in commercial horticulture and is also significant for assessing whether or not a species is threatened by an environmental change such as global warming. Timing of flowering within and among individuals is of biological importance because of its effects on plant reproduction, fitness and survival. Flowering phenology could be affected by several environmental factors such as temperature and photoperiod. It is known that high night temperatures cause floral abortion. The parameters of flowering phenology focus on the onset and duration of flowering and on synchrony amongst individuals as would occur in nature through global warming. The question of the present investigation is: To what extent would increased temperature interfere with the requirements for flowering and with the physiology of the fynbos in the Western Cape. These effects are currently being examined by testing the flowering phenology, photochemical performance, transpiration rate, growth and reproduction of twenty four different fynbos species comprising of herbs, bulbs, succulents and shrubs. Eight temperature treatments and eight controls are used. Progress in this investigation and preliminary results are discussed.

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### The International Seed Testing Association and seed health testing

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Founded in 1924, with the aim to develop and publish standard procedures in the field of seed testing, the International Seed Testing Association (ISTA) is inextricably linked with the history of seed testing. ISTA has 179 member laboratories (101 ISTA accredited) in 72 countries world wide and about 210 personal members. Membership is a collaboration of seed scientists and seed analysts from universities, research centres and governmental, private and company seed testing laboratories around the world. The aim of ISTA is to develop, adopt and publish standard procedures for sampling and testing seeds, and to promote uniform application of these procedures for evaluation of seeds moving in international trade. In many countries import of seed is only permitted if the seed lot is accompanied by an ISTA International Seed Analysis Certificates. ISTA is independent and acts free from economic interest and political influence. Fourteen subject-focused Technical Committees and one GMO Task Force